

Proposed Claim Amendments

Claim 1 (Currently amended): A method of separating a compound of interest from a mixture, the method comprising the steps of:

(a) determining a static correlation function between retention time on an analytical HPLC column under a first set of conditions and retention time on a preparative scale HPLC column under a second set of conditions;

(a)(b) providing a mixture containing a compound of interest, the compound of interest having an expected mass;

(b)(c) subjecting a portion of the mixture to a separation using an the analytical HPLC column under the first set of conditions to produce an eluate stream;

(e)(d) analyzing the eluate stream using a mass spectrometer to determine a retention time of the compound of interest on the analytical HPLC column;

(e)(e) predicting a retention time of the compound of interest from a on the preparative scale HPLC column using a predetermined the static correlation function between retention time on the analytical HPLC column and retention time on the preparative scale HPLC column along with the determined retention time of the compound on the analytical HPLC column;

(e)(f) selecting a window of time around the predicted retention time within which the compound is expected to elute;

(f)(g) subjecting all or a portion of the remaining mixture to a separation using a preparative scale HPLC system comprising the preparative scale HPLC column, an HPLC compatible detector, and a fraction collector, the separation carried out under the second set of conditions; and

(g)(h) collecting at least a portion of the compound of interest using the fraction collector, the fraction collector being activated upon detection of a peak by the HPLC compatible detector within the selected window of time.